Intro to Realist evaluation & research

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On the menu

• Introduction to the principles of realist evaluation

• Some illustrations
Theory-driven inquiry

= A group of approaches that are driven by theory (and not method) and that focus on mechanisms

Aim: To learn ‘whether an intervention works, for whom, in which contexts and how’
- Essential information for policymakers and programme managers
- Allows appraisal of transferability of an intervention
  - Different from black box evaluations that only assess whether a programme attained its intended results, not how and in which conditions

3 main schools

- Theories of change
  Connell, Kubisch, Schorr & Weiss (1995)

- Theory-driven evaluation
  Chen & Rossi (1987)
  aka theory-based evaluation, programme theory evaluation, programme theory-driven evaluation, etc.

- Realist evaluation & Realist synthesis
  Pawson & Tilley (1997)
Realist evaluation

Pawson and Tilley (1997)

In order to be useful for decision makers, evaluations need to indicate
what works, for whom,
in what circumstances,
in what respects,
over which duration,
and why?
rather than respond to ‘does it work?’

RE shares emphasis on the use of theory with Theory-driven evaluation and Theories of change

• RE is not method-driven, but theory-driven
  • Driven by a hypothesis or an initial problem
  • Realist evaluation starts with a theory and ends with a (refined) theory

• Theory should in this case be understood as middle-range theories (Merton 1968)

  “theories that lie between the minor but necessary working hypotheses (...) and the all-inclusive systematic efforts to develop a unified theory that will explain all the observed uniformities of social behavior, social organization and social change”

institute of tropical medicine antwerp
RE is different from the other schools of theory-driven inquiry

- Explicit philosophical roots
  - RE is based on scientific realism
    - Specific assumptions about
      - the nature of reality
      - the nature of knowing that reality
      - causation
      - attribution
  - Methodology
    - Heuristic: context, mechanism, outcome

Principles of realist evaluation

(1) There is a reality independent of the observer

Realist ontological position

- The world exists independently of our knowledge of it (realist ontology)
  - The material but also the social world are ‘real’
- Anything that has a real effect is real
  - Class, gender, power position, ...
  - Also policies, programmes, interventions, etc. are real
    ... as well as social structure

Westhorp (2014)
(2) Knowing reality through science is unavoidably relative to the researcher

Weak relativist epistemological position

- Developing knowledge on reality
  - is unavoidably relative to the researcher
  - is constrained by cognition and is socially constructed
  - remains often incomplete

- But it is possible to move gradually closer to an understanding that better reflects the reality under study

(3) All social systems are complex systems

- Programmes are open systems, embedded in and in constant interaction with the (social) systems in which they intervene
  - Choosing the boundaries of the study object may not be easy
  - Context matters

- Programmes are dynamic (while most evaluations are snapshots...)

- Observed outcomes are likely to be multi-determined

- Causation may be non-linear
(4) Perspective on causation is grounded in *generative causality*

**Positivism**

- Causation: successionist
  \[ X \rightarrow Y \mid \text{certain conditions} \]
- Assumptions:
  - Only the observable exists
  - Observation / perception is unproblematic
  - We can only conceptualise ‘causation’ as a ‘constant conjunction’ (Hume)
  - Induction: from the particular to the universal
  - Understanding how effects are caused is not necessary to demonstrate causality

(4) Perspective on causation is grounded in *generative causality*

**RE**

- The world is differentiated and stratified, consisting of
  - observable and measurable events
    + structures, which have powers and liabilities capable of generating events
- These structures may be present even where they do not generate regular patterns of events

(Sayer 1992)
The 'empirical' is a subset of the 'actual'
The 'actual' is a subset of the 'real'

(4) Perspective on causation is grounded in *generative causality*

**Table 1**: Ontological assumptions of the critical realistic view of science (Bhaskar 1975).

<table>
<thead>
<tr>
<th></th>
<th>Domain of Real</th>
<th>Domain of Actual</th>
<th>Domain of Empirical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanisms</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Events</td>
<td>X</td>
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<tr>
<td>Experiences</td>
<td>X</td>
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</table>

**Causation**: a relationship between "the 'causal powers' of objects or relations (or their ways-of-acting of 'mechanisms) and the outcomes of those mechanisms

*Actors* have a potential for change by their very nature

- *Agency*: actors can produce change intentionally (or unintentionally)

*Actors and programmes are rooted in a *layered social reality*

- Permanent interaction between agency and *structure* (Archer)

*Causal mechanisms* reside in social relations and wider structural conditions as much as in individuals (structure - agency)
(5) The search for ‘mechanisms’

**Mechanisms** = resources and/or the social or psychological drivers that influence the reasoning of actors (Pawson & Tilley)

Mechanisms are activated **when the context conditions are right**

- Ex.: the effect of releasing a tennis ball
  - Different effect on tennis court, in a swimming pool or on the Moon
  (Westhorp 2014)

Mechanisms are underlying drivers of processes of change, which lead to outcomes in **specific conditions**

- play out at the level of **individuals, groups, organisations and society**
  - mechanisms can be found in psychological, social, cultural, political and economic theories
- are latent and mostly invisible

(Weiss 1997 and Astbury & Leeuw 2010)
Money is a motivator
People work harder if you pay them in function of their performance

Example - A pay-for-performance scheme

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remuneration tied to performance</td>
<td>Increase in performance</td>
</tr>
</tbody>
</table>

**Mechanism**
Money is a motivator
*People work harder if you pay them in function of their performance*

<table>
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<tr>
<th>Intervention</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remuneration tied to performance</td>
<td>Crowding out intrinsic motivation</td>
</tr>
<tr>
<td>Extrinsic + intrinsic motivation</td>
<td>Gaming</td>
</tr>
</tbody>
</table>

**Actors**
Financial incentives work for competent actors with strong extrinsic motivation who aren’t paid well

**Context**
Working conditions, organisational climate, societal expectations, etc.
(5) The search for ‘mechanisms’

- P&T: Mechanisms generally involve **actors’ reasoning** on the distribution of resources
  - The evaluator needs to identify
    - what resources, opportunities or constraints were actually provided and to whom
    - what ‘reasoning’ was prompted in response
    - what changes in behaviour resulted from this (or not)
    - what outcomes were ultimately achieved

→ **Programmes work differently for different people**

(6) Context matters - a lot

**Context conditions**
- provide the **necessary conditions** for the mechanism that will be triggered
- have an influence on the **implementation** of the programme
- may have an effect on the observed **outcome**
- **include**: social, economic and political structures, social policies, organisational context, geography, historical context, etc.
(7) Analysis needs to reach depth

Realists propose a heuristic for analysis
the Context-Mechanism-Outcome configuration

The CMO configuration

Pawson & Tilley
(1997)
ICAMO

Context

Intervention

Initial situation

Actors

Mechanism

Outcome

Changed situation

(outcome)
(7) Analysis needs to reach depth

CMOs are not tables with lists of mechanisms, lists of context elements and lists of outcomes

→ ICAMO configuration

At the end of the study, ICAMOs are compared with the initial programme theory (specification)

Repeated studies lead to accumulation of insights and to a refined PT

(7) Analysis needs to reach depth

Realist research is method-neutral

- methods need to provide the data required to help ‘test’ the initial programme theory in terms of
  - effectiveness
    Did the programme achieve its goal?
  - causal processes
    How did the observed results come about, in which context, why and for whom?
(7) Analysis needs to reach depth

Patterns (or demi-regularities) of I - A - C - M = O occur

- Certain people tend to behave in certain ways in certain situations

**Retroduction** (cfr. Sherlock Holmes or ‘backwards tracing’)
- Theoretical explanation proceeds by ‘DREI’
  - Start with **description** of significant outcomes
  - **Retroduction** to possible causal mechanisms
  - Elimination of alternatives
  - **Identification** of the generative mechanism(s)

The RE cycle

START
The research question

PROGRAMME THEORY

“END”
Refined PT provides policy-relevant information

SYNTHESIS
Comparison of CMO findings with PT

DESIGN
Design follows research questions and PT

DATA ANALYSIS
Context-Mechanism-Outcome configurations

DATA COLLECTION
Mixed methods

ISSUES AND INNOVATIONS IN NURSING PRACTICE

A realist study of the mechanisms of cardiac rehabilitation

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A realist study of the mechanisms of cardiac rehabilitation

Aim

The aim of this paper is to report patients’ experiences of cardiac rehabilitation and perceptions of the mechanisms and contexts influencing its long-term effectiveness.

Background

Cardiac rehabilitation programmes for the secondary prevention of coronary heart disease are common. The effects of these programmes, however, can be inconsistent and little is known of the personal and contextual factors that influence service effectiveness.

Method

Forty-seven participants with a formal diagnosis of coronary heart disease who had attended a programme of cardiac rehabilitation in Scotland 3 years previously were included in focus groups to discuss their perceptions and experiences (30 males and 17 females). The data were generated in 2002 and analysed using the realist approach of Pawson and Tilley (1997).

Results

Participants’ accounts indicated that the didactic content of cardiac rehabilitation was not strongly linked to longer-term health behaviour change. The main positive effects of cardiac rehabilitation were related to the effect of participation on mediating social and body-focused mechanisms that were triggered when the rehabilitation setting was perceived to be safe. Social mechanisms identified included social comparisons, camaraderie, and social capital. Body-focused mechanisms included greater knowledge of personal physical boundaries and a greater trust in the heart-diseased body. Collectively, these mechanisms had a positive effect on confidence that was perceived as being imperative to maintain health behaviour change.

Conclusions

More support is required to promote health behaviour change after the completion of cardiac rehabilitation. Use of community-based exercise services and conventional or web-based support groups for coronary heart disease patients should be encouraged, as these appear to extend the positive health effects of the mechanisms that promote behaviour change. At the completion of cardiac rehabilitation programmes, patients should be referred to safe and appropriate community-based exercise services. Further research is needed to examine the effects on health outcomes of mechanisms and contexts related to cardiac rehabilitation.

**Methodology**

- **No preliminary PT** is presented by the authors
- **Design**: Qualitative study
- **Setting**: a relatively deprived region of the West of Scotland
- **Data collection**
  - **Focus groups** to elicit individuals’ perspectives
  - RE used to structure data collection through the content of the focus group schedules and inform the analysis

**Results**

*Attending the CR sessions*

- **CR is a group activity**
  - For many, the group-based nature was seen as disadvantageous to their own interests
  - Slowly, the group-based nature of the sessions came to be seen as an advantage
  - the feeling of all patients ‘being in the same boat’ gave people a sense of not being alone as they faced the seemingly similar challenges that lay ahead (*sense of collective identity*)

**Results**

*Attending the CR sessions*

- The *atmosphere* was perceived to be friendly, encouraging and supportive (*context*)
- The *good relations* between the people attending (*intermediate outcome*) increased motivation to attend and fostered *mutual encouragement* (*mechanism*)

*Outcomes of the CR sessions*

- For some users, being in *close proximity* to other former cardiac patients at different stages in rehabilitation *demonstrated* not only that people with cardiac disease could progressively achieve high levels of fitness but that they personally could achieve this also

  ➔ *increased personal confidence* and *reduced fear*

Results

Outcomes of the CR sessions

• For others: no subsequent improvements in health behaviours

→ Explaining divergent observed outcomes

• Developing an embodied sense of where their physical boundaries lay and social factors were central elements of the explanation of the processes through which CR was linked to either a positive or negative result.

Analysis

• The importance of providing patients with information is often stressed
• This study: the main ways in which CR fostered change were not didactic but related to social factors and embodiment
  • The concept of social capital
    • the social benefits of attending CR can influence behavioural change through increased motivation but also counter other negative social factors linked to ill health, such as isolation and stress

Analysis

- **Embodiment**
  - Faith in the body and its ability to fulfill the physical demands of daily life were greatly undermined by a diagnosis of CHD

- **Context matters**
  - A lack of perceived safety for people with a CHD history was associated with a reluctance to exercise after completion of the CR programme

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**Bibliography**


